

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

Claim 1 (currently amended): A wafer holder for semiconductor manufacturing devices, the wafer holder comprising:

a sintered aluminum nitride (AIN) wafer holder body, the wafer holder body fabricated from AIN powder having an oxygen impurity concentration of 2 weight percent or less and a metal impurity concentration of 2000 parts per million or less;

the wafer holder body having a wafer-carrying surface;

an electrical circuit formed either on a surface other than the wafer-carrying surface of the wafer holder body, or else inside it; and

electrodes for supplying power to said electrical circuit, said electrodes being separated by an interval that is 10% or more of the thickness of the wafer holder body, and in such a manner that in use the wafer-carrying surface has a temperature uniformity of within \pm 1 percent, the substance of said electrodes being one or more metals selected from the group consisting of tungsten, molybdenum and tantalum, and said electrodes having superficially formed thereon an oxidation-resistant coating of at least one metal selected from the group consisting of nickel, gold and silver.

Claim 2 (canceled)

Claim 3 (original): A semiconductor manufacturing device wherein the wafer holder set forth in claim 1 is installed.

Claim 4 (canceled)

Claim 5 (currently amended): A wafer holder for semiconductor manufacturing devices, the wafer holder comprising:

a sintered aluminum nitride (AIN) wafer holder body, the wafer holder body fabricated from AIN powder having an oxygen impurity concentration of 2 weight percent or less and a metal impurity concentration of 2000 parts per million or less;

the wafer holder body having a wafer-carrying surface;

a plurality of electrical circuits formed either on a surface other than the wafer-carrying surface of the wafer holder body, or else inside it; and

at least three electrodes for supplying power to said plurality of electrical circuits, each pair of electrodes being separated by an interval that is 10% or more of the thickness of the wafer holder body, and in such a manner that in use the wafer-carrying surface has a temperature uniformity of within ± 1 percent, the substance of said electrodes being one or more metals selected from the group consisting of tungsten, molybdenum and tantalum, and said electrodes having superficially formed thereon an oxidation-resistant coating of at least one metal selected from the group consisting of nickel, gold and silver.

Claim 6 (new): A semiconductor manufacturing device wherein the wafer holder set forth in claim 5 is installed